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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/359,416	07/23/1999	YOUICHI YAMADA	P7156-9039	2778

4372 7590 06/07/2004

ARENT FOX KINTNER PLOTKIN & KAHN  
1050 CONNECTICUT AVENUE, N.W.  
SUITE 400  
WASHINGTON, DC 20036

EXAMINER

MCCHESEY, ELIZABETH A

ART UNIT	PAPER NUMBER
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2644

DATE MAILED: 06/07/2004

*16*

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/359,416

Applicant(s)

YAMADA ET AL.

Examiner

Elizabeth A McChesney

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 1 and 2** are rejected under 35 U.S.C. 102(e) as being anticipated by Suzuki et al. (US Patent No. 6,452,082 B1).

Regarding **claim 1**, Suzuki et al. (hereinafter, "Suzuki") discloses a method for generating musical tones. Suzuki further discloses a signal processing means 3 in which a plurality of external electronic instruments are input via the MIDI interface (col. 6-lines 22-26). Suzuki further discloses an operating means 1 for setting performance methods, which reads on setting the parameters for the processing means to process the audio signals (col. 6-lines 66-67 and col. 7-lines 1-2). Suzuki discloses a storing means for storing a plurality of waveforms, which reads on a series of past operations, for generating a desired treatment, for example glissando 12 (col. 2-lines 33-34). Suzuki further discloses a designating means for designating a sequence of waveforms necessary for generating a desired treatment, glissando waveform from the plurality of kinds of waveforms stored (col. 2-lines 41-44). Suzuki further discloses a control means, which reads on the CPU 3.

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Regarding **claim 2**, Suzuki discloses everything claimed as applied above (see claim 1). Suzuki further discloses an executing step for enabling the storing of a plurality of kinds of waveforms (series of past operations) (col. 2-lines 33-34). Suzuki further discloses an executing step for designating a sequence of waveforms necessary for generating a desired treatment from the plurality of kinds of waveforms stored (col. 2-lines 41-43).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 3-5** are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. (US Patent No. 6,452,082 B1) in view of Silfvast et al. (US Patent No. 6,438,241 B1).

Regarding **claim 3**, Suzuki discloses everything claimed as applied above (see claim 1). Suzuki discloses the operating means as composed of switches for manually setting the parameters (performance method). Suzuki fails to specifically disclose the type of switch used. The examiner maintains there are various types of switches, which include slides, push buttons, flick switches and rotary knobs, etc. Silfvast et al. (hereinafter, "Silfvast") discloses a rotary control for an audio mixer or other audio processor, that is referred to as a rotary switch (see figure 7), which sets parameters by

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the angular position of the rotational knob (col. 2-lines 27-30). Therefore it would have been obvious for one of ordinary skill to use a rotational knob as disclosed by Silfvast to modify Suzuki's switch to set parameters. Both are well known in the art for adjusting levels and setting desired values and therefore could use either for parameter settings.

Regarding **claim 4**, Suzuki in view of Silfvast discloses everything claimed as applied above (see claim 3). Silfvast further discloses a display such as an array of lights wherein a sensor is coupled with the rotor, which senses its relative rotation wherein the display of lights is in response to the sensor to indicate a value of a parameter (col. 2-lines 40-56).

Regarding **claim 5**, Suzuki in view of Silfvast discloses everything claimed as applied above (see claim 4). It is inherently taught that the faster the knob is turned the quicker the sensor picks up the information in order to display the light referencing the position of the parameter. Therefore the rotating direction and the speed of the knob being turned (angular velocity) is inherently used to calculate the rotating amount and which the position setting is verified by the display.

5. **Claim 6** is rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. (US Patent No. 6,452,082 B1).

Regarding **claim 6**, Suzuki in view of Silfvast discloses everything claimed as applied above (see claim 1). Suzuki further discloses combining waveforms of different musical tones and effects, such as slur, trill, etc. Therefore it would have been obvious to one of ordinary skill in the art to produce sounds such as, for example a jet or a bell

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for desired sound effects. It is also well known in the art that a mixing console is capable of controlling, mixing and designing audio sounds of all ranges and therefore commonly allows the user to adjust the pitch or frequency of a sound to produce a desired output of audio.

***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth A. McChesney whose telephone number is (703) 308-4563. The examiner can normally be reached Monday – Friday, 8:00 am – 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W. Isen can be reached on (703) 305-4386.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**Or faxed to:**

**(703) 872-9314 (for Technology Center 2600 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

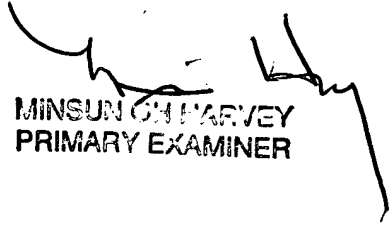
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

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EAM *EAM*  
May 27, 2004

  
MINSUN CHAE  
PRIMARY EXAMINER